

**IN THE DRAWINGS:**

Please delete figures 1-17 and replace with new figures 1-17, which are each marked as a "Replacement Sheet." Figures 1-17 are being replaced to correct objections from the Examiner. The replacement figures incorporate corrections that satisfy the Examiner's rejections.

## **RESPONSE**

This is a response to the Office Action dated September 29, 2004. Claims 1-31 are pending in the application. In the Office Action, the Examiner objected to various informalities and typographic errors in the specification. In addition, the Examiner objected to claims 1, 3-8, 11, 13, 17, 18, 21, 23-26 and 29-31 for various informalities. Claim 10 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1-31 were also provisionally rejected under 35 U.S.C. § 101 based on double patenting. Claims 1, 2-12 and 13-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over: U.S. Pub 2002/0103772 (“Chattopadhyay”) in view of U.S. Pub 2003/0236903 (“Piotrowski”); and Chattopadhyay in view of Piotrowski and further in view of U.S. Pat. No. 6,377,939 (“Young”).

The rejections from the Office Action of September 29, 2004 are discussed below in connection with the various claims. No new matter has been added. Reconsideration of the application is respectfully requested in light of the following remarks.

### **I. INFORMATION DISCLOSURE OBJECTIONS**

The information disclosure statement filed on 1/23/04 was objected to for failing to attach a PTO-1449 form according to 37 CFR 1.98(a)(1). However, the information disclosure statement filed on 1/23/04 did include a PTO-1449 as evidenced by the enclosed photocopy of the postcard receipt from the PTO. For the Examiner’s convenience, a copy of the appropriate PTO-1449 has also been included with this response.

### **II. DRAWING OBJECTIONS**

The Examiner objected to the drawings as containing various informalities. With this response, appropriate corrections have been made. No new matter has been added. In particular, the following corrections have been made:

1. On page 15, paragraph 0056 the detailed description has been modified to replace “111” with “211”;
2. On page 15, paragraph 0057 the detailed description has been modified to delete three instances of “111” and replace them with “211”;
3. On page 19, paragraph 0064 of the detailed description has been modified to include loads 151 and 153 as well as generator 152: “The consumer 132

concurrently monitors usage of loads 150 151 153, where generator 152 supplies power to usage load 153,...”;

4. On page 19, paragraph 0064 of the detailed description has been modified to include the sentence: “A second customer 133 can also concurrently monitor usage loads 155 156 157 where generator 154 supplies power to usage load 157”;
5. On page 24, paragraph 0070 of the detailed description has been modified to include identification of the IP layers as 326: “...remaining IP layers 326 where...”;
6. On page 27, paragraph 0075 of the detailed description has been modified to state: “...where kVA or kWh pulses 420 translated into data 422 are sent...”;
7. On page 27, paragraph 0075 of the detailed description has been modified to state: “...analyzed according to 430 for usage, consumption...”;
8. On page 27, paragraph 0075 of the detailed description has been modified to state: “...set tariff structure according to 436.”;
9. On page 28, paragraph 0076 of the detailed description has been modified to remove a space after “load management component 259”;
10. On page 28, paragraph 0077 of the detailed description has been modified to state: “...measures power usage by the load and by converting a kWh or kVa pulse 511 into data 512 and transmits...”;
11. On page 28, paragraph 0077 of the detailed description has been modified to state: “...usage 516, 518 and upon receiving costs 520 compares rates...”;
12. On page 28, paragraph 0077 of the detailed description has been modified to state: “...tariff structure 523, 524 and the process is complete 530.”;
13. On page 34, paragraph 0088 of the detailed description has been modified to state: “...passes the monitored data over network 1010 to a monitoring server 1011”;
14. On page 43, paragraph 0107 of the detailed description has been modified to state: “Figure 15 illustrates an exemplary method for generating 1500 and transmitting 1501 an XML document that cycles until the generation is complete 1502.”;
15. On page 43, paragraph 0107 of the detailed description has been modified to add the following sentence at the end of the paragraph: “The transformations are from the source 1610 to Unicode translation 1620 to unity 1630, then either a hash

value output 1640 or to XML parsing 1650 to HTTP transformation 1660 and to TCP/IP data sink 1670”;

16. Figures 1-31 have been amended to be identified as “Replacement Sheet” on the top margin of each Figure;

17. Figure 12 has been amended so the label says “Figure 12” instead of “Figur 12”; and

18. Figure 15 has been amended so the label says “generation” instead of “gen ration”;

Accordingly, Applicants respectfully request that the Examiner withdraw these objections to the Drawings.

### **III. SPECIFICATION OBJECTIONS**

The Examiner objected to the specification as containing various informalities and typographic errors. With this response, a substitute specification has been provided which corrects all of the errors noted by the Examiner. No new matter has been added. A marked up version of the substitute specification has also been provided showing the changes made except it does not detail the formatting changes and font changes made to the tables.

In particular, the following corrections have been made:

1. On the cover page, the reference number for the assignee (“PML Ref. No. 300107”) has been added underneath the reference number of the attorney for Applicant;
2. On page 1, the Related Applications section has been updated;
3. On page 2, paragraph 5, “XML” has been changed to “Extensible Markup Language (XML).” It is well known that the acronym XML stands for Extensible Markup Language;
4. On page 11, paragraph 47, “SMTP” has been changed to “Simple Mail Transfer Protocol (“SMTP”).” It is well known that the acronym SMTP stands for Simple Mail Transfer Protocol;
5. On page 11, paragraph 47, “MIME” has been changed to “Multipurpose Internet Mail Extensions (“MIME”).” It is well known that the acronym MIME stands for Multipurpose Internet Mail Extensions;

6. On page 11, paragraph 47, "POP" has been changed to "Post Office Protocol ("POP")." It is well known that the acronym POP stands for Post Office Protocol;
7. On page 16, paragraph 59, "supplier/utility 123, 124" has been corrected to "supplier/utility 130, 131";
- 5 8. On page 16, paragraph 59, four instances of "components 211" has been corrected to "components 201 202 203";
9. On page 16, paragraph 59, and page 16, paragraph 60, "power management application 111" has been corrected to "power management application 211";
- 10 10. On page 19, paragraph 64, "power distribution" was deleted before "network 110";
11. On page 22, paragraph 67, "load's 301" has been corrected to "load's 317";
12. On page 22, paragraph 67, "communications interface 312" has been corrected to "communications interface 313";
13. On figure 3b of the drawings, the Network has been labeled as 307;
- 15 14. On page 28, paragraph 76, "load management component 250" has been corrected to "load management component 259";
15. On page 28, paragraph 77, "back end server 511" has been corrected to "back end server.";
16. On page 30, paragraph 82, the referenced patent has been updated with Patent No. "6,671,654";
- 20 17. On page 31, paragraph 83, "loads 724 726" has been corrected to "loads 722 724";
18. On page 32, paragraph 85, "IED 804 806" has been corrected to "IED 802 804";
19. On page 35, paragraph 89, "data fro" has been corrected to "data from";
- 25 20. On page 43, paragraph 107, "XML document 1200" has been corrected to "XML document in Figure 12"; and
21. On page 59, the Abstract has been rewritten in under 150 words.

Accordingly, Applicants respectfully request that the Examiner withdraw these objections to the Specification.

#### **IV. REJECTIONS UNDER 35 U.S.C. § 112**

The Examiner rejected claim 10 under 35 U.S.C. § 112, second paragraph as being indefinite. With this amendment, claim 10 has been amended for clarity, and not for reasons relating to patentability. Accordingly, Applicant respectfully requests that the Examiner  
5 withdraw the rejection of claim 10.

#### **V. DOUBLE PATENTING REJECTION**

The Examiner provisionally rejected claims 1-31 under 35 U.S.C. § 101, as claiming the same invention as that of claims 1-31 of co-pending Application No. 10/689,895 (The '895  
10 App.). The '895 Application will be amended with unique claims that are different than claims 1-31 in this Application.

Accordingly, Applicant respectfully requests that the Examiner withdraw this objection to claims 1-31.

#### **15 VI. REJECTIONS UNDER 35 U.S.C. § 103(a)**

##### **A. Chattopadhyay in view of Piotrowski**

Claims 1, 3-11 and 13-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chattopadhyay in view of Piotrowski. Applicant submits that claims 1, 3-11 and 13-31 are not obvious for the reason that Chattopadhyay in view of Piotrowski does not teach all of the  
20 elements of each claim.

Claims 1 and 11 relate to an energy management device for managing the flow of energy and claims 21, 23, 28 and 29 relate to methods for generating or receiving data with the energy management device. Claim 30 relates to an electrical power management architecture for managing electrical power distribution system. Claim 31 relates to an energy meter for  
25 managing the flow of electrical energy for use in an energy management architecture. The energy management device comprises a network interface coupled to a network, an energy distribution system interface coupled to a energy distribution system, and a processor coupled to the network interface and the energy distribution system interface that processes at least one energy management quantity to manage the flow of electrical energy. The power management  
30 data is encoded as an XML document and is received over the network or the device generates an XML document that is communicated to the network. Claims 21, 23, 28 and 29 relate to

methods for generating or receiving data as an XML document over the network and processing data until all of the data has been received or sent as an XML document.

Chattopadhyay discloses a “system for evaluating real-time power flow. [The system collects] measurement data associated with at least one point in a power transmission network and a server...operable to process measurement data to determine a current. A client in communication with the server...display[s] the current...and a cost associated with the current.” Chattopadhyay, Abstract.

Piotrowski discloses a “method or apparatus...for streaming an XML document...that allows the receiver to decode prioritized portions. The XML receiver [can process] the most important XML portions of an XML stream first, as well as in mid-transmission.” Piotrowski, Abstract. “Each XML document is encoded as a collection of segments (e.g. XML portions), which enables the receiver to no longer wait to receive the entire XML document before processing the information.” Piotrowski, paragraph 16 (emphasis added).

Chattopadhyay in view of Piotrowski fails to teach an energy management device that is operative to *incrementally* receive one of a power management command and power management data as in claim 1 or *incrementally* generate a document as in claim 11. Chattopadhyay does disclose a network interface and a local area network and Piotrowski discloses streaming of an XML document in portions. However, there is no suggestion in Chattopadhyay to incrementally receive or generate data and Piotrowski merely discloses a method of translating an XML document, already created, into portions of data and translating portions of received data into an XML document. Claims 1 and 11 relate to an energy management device that incrementally receives data or incrementally generates a document, i.e. the document need not be created in its entirety before sending.

Piotrowski actually teaches away from incrementally receiving power management data as in claim 1 and incrementally generating an XML document from received power management data as in claim 11. Piotrowski requires breaking data into smaller portions based on priority. In other words, Piotrowski takes an XML document, breaks it down into prioritized packets, and streams the packets. In order to prioritize information into packets, each portion of the information must be compared with other portions to determine which are higher priority, necessitating that the whole document or at least multiple portions be available for the analysis of priority. In contrast, Applicants’ claims require transmitting the portions of the XML

document as they are created. If a low priority portion is created prior to a high priority portion, the low priority portion would be transmitted before the high priority portion, contrary to the teaching of Piotrowski. Accordingly, one of ordinary skill in the art would not combine the teaching of Piotrowski and Chattopadhyay to implement Applicants' claimed invention because the advantages of the system disclosed in Piotrowski would be lost.

There is no motivation to combine Chattopadhyay with Piotrowski. Chattopadhyay suggests XML as possible "content of the modules and databases" of the system.

Chattopadhyay, paragraph 34. However, there is no suggestion in Chattopadhyay of incrementally receiving or incrementally generating data. The collection of data and transmission of data in Chattopadhyay teaches away from the *complete* collection of data as a first step because the power flow information could not be evaluated in real-time. Piotrowski requires a complete document before it can be prioritized into packets. Therefore, there is no motivation to combine Piotrowski with Chattopadhyay.

It is not obvious to one of skill in the art that the communication of the energy management device in claims 1 and 11 would be based on a plurality of segments. Piotrowski does disclose a method of streaming an XML document based on portions, but as described above, Chattopadhyay cannot be combined with Piotrowski and the combination of the references actually teaches away from claims 1 and 11. Therefore, claims 1 and 11 are not obvious from Chattopadhyay in view of Piotrowski.

Similarly, claim 31 relates to an energy meter that *incrementally* generates an XML document. For the reasons mentioned above, claim 31 is not obvious from Chattopadhyay in view of Piotrowski. Claim 30 relates to an electrical power management architecture and includes an incremental processor operative to *incrementally* generate an XML document, *incrementally* receive an XML document, and interpret an XML document to extract a power management command. Chattopadhyay in view of Piotrowski teaches away from the incrementally generating and receiving data as in claims 30 and 31. In addition to the reasons mentioned above, Chattopadhyay does not disclose the interpretation of a document to extract a command and Piotrowski merely discloses the streaming of an XML document into portions, not interpreting a document to extract a command as in claim 30. Therefore, claim 30 is not obvious from Chattopadhyay in view of Piotrowski.



Claims 21 and 28 relate to a method of generating a portion of XML data and claims 23 and 29 relate to a method of receiving a *portion* of XML data. Claims 23 and 29 have a step for determining when received data is processable XML code. As mentioned above, Chattopadhyay in view of Piotrowski teaches away from the generating and receiving portions of data as in  
5 claims 21, 23, 28 and 29. In addition, Chattopadhyay does not disclose the extra step in claims 23 and 29, and it would not be obvious in view of Piotrowski because Piotrowski does not disclose a method for determining when received data is processable XML code. Claims 21 and 28 both generate a set of data to be communicated and transform that data into XML format as it is generated. Chattopadhyay does not disclose the transformation of data into XML format and it  
10 would not be obvious in view of Piotrowski because Piotrowski does not disclose a method for transforming data into XML format. For at least these reasons, claims 21, 23, 28 and 29 are not obvious from Chattopadhyay in view of Piotrowski.

Accordingly, Applicants request that the Examiner withdraw these rejections of claims 1, 3-11 and 13-31.

**B. Chattopadhyay in view of Piotrowski further in view of Young**

Dependent claims 2 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chattopadhyay in view of Piotrowski further in view of Young. These claims should be allowed for the reasons set forth above for the independent claims from which claims 2 and 12  
20 depend. Chattopadhyay, Piotrowski or Young do not disclose all of the limitations of the independent claim from which claims 2 or 12 depend. In particular, Chattopadhyay in view of Piotrowski fails to disclose incremental communication of a data by an XML document. Young also fails to disclose such communication. Accordingly, Applicants request that the Examiner withdraw these rejections of dependent claims 2 and 12.

**CONCLUSION**

Each of the rejections in the Office Action dated September 29, 2004 has been addressed and no new matter has been added. Applicants submit that all of the pending claims are in  
5 condition for allowance and notice to this effect is respectfully requested. The Examiner is invited to call the undersigned if it would expedite the prosecution of this application.

Respectfully submitted,

Date

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